TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID : CP-2017-07-17-02 **Date: 18-07-17**

Customer : Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.

Address : Yelahanka Sub division, BBMP, Bangalore.

Project Name : Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.

Agency : Technical Manager (West), KRIDL, BBMP, Bangalore.

Customer Reference : BBMP/EE/(YNK.D)/W.O/86/ 2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 17-07-17

Sample ID No : 2017-07-17-02/01

Type of Mix : DBM-Plant (Dense Bituminous Macadam)

Date of test : 17-07-17

Weight of Sample : 5000 Grams

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-10 (grading -2)
37.5	0	0	0	100	100
26.5	176	176	3.5	96.5	90-100
19	943	1119	22.4	77.6	71-95
13.2	864	1983	39.7	60.3	56-80
4.75	754	2737	54.7	45.3	38-54
2.36	659	3396	67.9	32.1	28-42
0.3	765	4161	83.2	16.8	7-21
0.075	547	4708	94.2	5.8	2-8
PAN	292	5000	0.0	0.0	0

Note:-

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared By:
Harshitha

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	CP-2017-07-17-02 **Date: 20-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	17-07-17
Sample ID No	:	2017-07-17-02/01
Type of Mix	:	DBM(Dense Bitumnous Macadam)
Date of test	:	17-07-17
Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.5	1.5	98.0	Minimum Retained Coating 95%
2	97.5	2.5		
3	98.0	2.0		

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harshitha

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TESTS RESULTS ON STABILITY OF MIX

Lab ID : CP-2017-07-17-02 **Date: 20-07-17**

Customer : Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.

Address : Yelahanka Sub division, BBMP, Bangalore.

Project Name : Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.

Agency : Technical Manager (West), KRIDL, BBMP, Bangalore.

Customer Reference : BBMP/EE/(YNK.D)/W.O/86/ 2017-18

Source of Sample : Hot Mix Plant, Bangalore

Sample Condition : Satisfactory

Date of Receipt : 17-07-17

Sample ID No : 2017-07-17-02/01

Type of Mix : DBM (Dense Bituminous Mecadam)

Date of test : 17-07-17

The results of the tests conducted on the Dense Bituminous Macadam mix sample are as follow

Sl.No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.3	11.18	9KN(Min)
2	Marshal flow at 60°C, mm	3.10	3.30	2-4
3	Percent air Voids	4.90	4.20	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.5	14.8	13-15
5	Percent Voids filled with Bitumen(VFB %)	72.2	71.90	65-75
6	Density, g/cc	2.30	2.39	–

Note:-

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared By:
Harshitha

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

Lab ID	:	**CP-RW-2017-07-21-02** **Date: 24-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	21-07-17
Sample ID No	:	2017-07-21-02/01
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	21-07-17

Table 500-16 : Physical Requirements fo Coarse Aggregate for Bituminous Concrete

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.8	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
	Elongation Index	13.2		
Strength	Aggregate Impact Value	22.6	Maximum 24%	IS:2386 Part IV
Specific gravity	Specific gravity	2.55	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.27	Maximum 2%	IS:2386 Part III

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

Prepared By:
Harshitha

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

TEST REPORT OF AGGEGRATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID	:	CP-RW-2017-07-21-02	**Date: 24-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.	
Address	:	Yelahanka Sub division, BBMP, Bangalore.	
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.	
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.	
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18	
Source of Sample	:	Sample supplied by Agency	
Sample Condition	:	Satisfactory	
Date of Receipt	:	21-07-17	
Sample ID No	:	2017-07-21-02/01	
Type of Mix	:	BC(Bitumenous Concrete)	
Date of test	:	21-07-17	

Type of Binder	:	60/70
% of Binder Used	:	5.0%
Weight of Aggregate	:	200.0 gm
Weight of Binder	:	10.0 gm
Temperature of water bath	:	40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.3	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.5	1.5		

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harshitha

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 20/07/2017

Lab ID	:	CP-2017-07-17-03
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer's Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	17-07-17
Sample ID No	:	2017-07-17-03/01
Customer ID	:	PCC
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M15 / 7 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	20/07/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	PCC	M15	13/07/2017	20/07/2017	150.14 X 150.12 X 150.23	22539	8.270	281.7	12.5	12.8
2	PCC	M15	13/07/2017	20/07/2017	150.22 X 150.32 X 150.27	22581	8.298	298.1	13.2	
3	PCC	M15	13/07/2017	20/07/2017	150.54 X 150.23 X 150.21	22616	8.255	289.5	12.8	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harsitha

FOR CIVIL Pro.

CIVIL PRO ★ Sig..... Date..... ★ BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL|
GEO TECHNICAL| PROJECT MANAGEMENT| SURVEYING SERVICES |

CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Date: 15/07/2017

Lab ID	:	CP-2017-07-12-02
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer's Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	12-07-17
Sample ID No	:	2017-07-12-02/01
Customer ID	:	Drain Concrete
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M20 / 7 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	15/07/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete	M20	08/07/2017	15/07/2017	150.33 X 150.20 X 150.65	22580	8.255	395.1	17.5	17.9
2	Drain Concrete	M20	08/07/2017	15/07/2017	150.45 X 150.55 X 150.10	22650	8.230	405.4	17.9	
3	Drain Concrete	M20	08/07/2017	15/07/2017	150.33 X 150.12 X 150.55	22568	8.248	413.0	18.3	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harsitha

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL|
GEO TECHNICAL| PROJECT MANAGEMENT| SURVEYING SERVICES |

CP/TF/01

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID	:	**CP-2017-07-12-02** **Date: 15/07/2017**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer's Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	12-07-17
Sample ID No	:	2017-07-12-02/03
Customer ID	:	Drain Concrete
Sample Type /Size	:	150X150X150 mm
Sample grade/Age	:	M20 / 7 Days Compressive Strength
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete Cl.5
Date of test	:	15/07/2017

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen (mm)	Cross sectional area (Sq.mm)	Weight of the sample (kg)	Failure Load (KN)	Compressive strength (N/mm^2)	Average Compressive Strength (N/mm^2)
1	Drain Concrete	M20	08/07/2017	15/07/2017	150.10 X 150.32 X 150.55	22563	8.255	410.6	18.2	17.9
2	Drain Concrete	M20	08/07/2017	15/07/2017	150.23 X 150.21 X 150.15	22566	8.227	397.2	17.6	
3	Drain Concrete	M20	08/07/2017	15/07/2017	150.25 X 150.65 X 150.44	22635	8.198	402.9	17.8	

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harsitha

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL|
GEO TECHNICAL| PROJECT MANAGEMENT| SURVEYING SERVICES |

TEST RESULTS OF GRADATION FOR GSB
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2017-07-10-02** **Date: 12-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	10-07-17
Sample ID No	:	2017-07-10-02/01
Type of Mix	:	GSB (Granular Sub Base)
Date of test	:	10-07-17
Oven Dry Weight	:	10100 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Spec. Limit Vide Table 400.1 MORTH Specification
75	0	0	0	100	100
53	992	992	9.8	90.2	80-100
26.5	1692	2684	26.6	73.4	55-90
9.5	1294	3978	39.4	60.6	35-65
4.75	1385	5363	53.1	46.9	25-55
2.36	1766	7129	70.6	29.4	20-40
0.425	1687	8816	87.3	12.7	10-25
0.075	996	9812	97.1	2.9	0-5

TESTS ON FILLER SCREEN MATERIALS

Sl no	Particulars	Test results	Spec.Limit Vide Table 400.2 MORTH Specification
1	Liquid Limit, %	21.33%	Maximum 25
2	Plasticity index, %	Non plastic	Maximum 6

Note:-
The results pertain to the samples received and tested.
All information Furnished by Customer/ Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared By:
Harshitha

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

Page 1/1
End of Report

TEST REPORT OF AGGEGRATE IMPACT VALUE

IS: 2386 Part IV

Lab ID	:	**CP-RW-2017-07-14-02** **Date: 16-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	14-07-17
Sample ID No	:	2017-07-14-02/01
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	14-07-17

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	302.0	302.0
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	67.4	71.2
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	234.2	229.3
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	1.5
5	Aggregate impact value	(B/A)*100	22.3	23.6
6	Aggregate impact value (Mean of two tests)	Pecentage	22.9	

Note:-

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared By:
Harshitha

CIVIL Pro. Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE(IS 2386 (Part 1) 1963 (RA 2007)

Lab ID	:	**CP-RW-2017-07-14-02** **Date: 16-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	14-07-17
Sample ID No	:	2017-07-14-02/01
Type of Mix	:	Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test	:	14-07-17

Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	13.3%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	10.7%	
Combined Flakiness and Elongation Index for WMM	24.0%	

Note:-
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid.
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Prepared By:
Harshitha

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL | GEO TECHNICAL | PROJECT MANAGEMENT | SURVEYING SERVICES |

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR DENSE BITUMINOUS MACADAM

Lab ID	:	CP-2017-07-17-02
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	17-07-17
Sample ID No	:	2017-07-17-02/01
Type of Mix	:	DBM (Dense Bituminous Macadam)
Date of test	:	17-07-17

Date: 20-07-17

Table 500-6 : Physical Requirements fo Coarse Aggregate for Dense Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Partical Shape	Flakiness Index	12.5	Combined Flakiness & Elongation Index for DBM is Maximum 35%	IS:2386 Part I
	Elongation Index	13.2		
Strength	Aggregate Impact Value	23.6	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.22	Maximum 2.7	IS:2386 Part III
Water Absorption	Water Absorption	0.24	Maximum 2%	IS:2386 Part III

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

FOR CIVIL Pro.

Prepared By:
Harshitha

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quallity Manager

End of Report

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3
Certificate No.: T-

CP/TF/01

TEST REPORT OF PHYSICAL PROPERTIES OF CEMENT - 53 Grade

Lab ID : CP-2017-07-03-04

Customer : Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore. **Date: 11-07-17**

Address : Yelahanka Sub division, BBMP, Bangalore.

Project Name : Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.

Agency : Technical Manager (West), KRIDL, BBMP, Bangalore.

Customer's Reference : BBMP/EE/(YNK.D)/W.O/86/ 2017-18

Source of Sample : Sample supplied by Agency

Sample Condition : Satisfactory

Date of Receipt : 03-07-17

Sample ID No : CP-2017-07-03-04/01

Sample Type : Birla Super 53grade

Reference to BIS codes : IS 12269 : 2013, 53 Grade Ordinary Portland cement Specification ,
IS 4031 Part 4, Determination of Consistency of Standard Cement Paste, Clause 5
IS 4031 Part 6, Determination of Compressive Strength, Clause 6

Date of test : 04-07-17

Compressive Strength			
Sl.No.	**Physical properties**	**Results**	**Requirement as per IS 12269: 2013**
1	3 Days	28.5N/mm^2	Not less than 27 N/mm^2
2	7 Days	38.5N/mm^2	Not less than 37 N/mm^2

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harshitha

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CP/TF/01

TEST REPORT ON COARSE AGGREGATES

Lab ID	:	**CP-2017-07-03-04** **Date: 06-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer's Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample condition	:	Satisfactory
Date of Receipt	:	03-07-17
Sample ID No	:	CP-2017-07-03-04/02(a)
Sample Type	:	40mm down size coarse aggregate
Reference to BIS codes	:	IS: 383:2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1,3,4) RA2011 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption IS 2386 Part 4: Mechanical Properties
Date of test	:	03-07-17

SIEVE ANALYSIS (PARTICLE SIZE DISTRIBUTION) OF 40MM DOWN COARSE AGGREGATE:

Total weight taken : **15000** **grams**

Sample No.	Sieve No.	Weight Retained in gms	Cumulative Weight Retained in gms	% Cumulative Weight Retained	% Passing	Required as per IS 383:2016
1	80 mm	0	0	0.0	100	100
2	40 mm	876	876	5.8	94.2	90-100
3	20 mm	8219	9095	60.6	39.4	30-70
4	10 mm	2871	11966	79.8	20.2	10-35
5	4.75 mm	2705	14671	97.8	2.2	0-5
6	Pan	329	15000	100.0	0	---

CIVIL Pro Sig..... Date..... BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST REPORT ON COARSE AGGREGATES

Lab ID : **CP-2017-07-03-04** **Date: 06-07-17**

Sample ID No : CP-2017-07-03-04/02(a)

PHYSICAL PROPERTIES

Sl.no	Tests	Result	Requirements as per IS:383-2016
1	Flakiness Index(%)	10.6	Combined Flakiness & Elongation Index Shall not Exceed 40% for Uncrushed & Crushed Aggregate
2	Elongation Index(%)	11.2	
3	Specific Gravity	2.62	–
4	Bulk Density(Loose) (Kg/l)	1.49	–
5	Bulk Density(Compacted) (Kg/l)	1.55	–
6	Water Absorption(%)	0.23	–

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harshitha

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

CP/TF/01

TEST REPORT ON PHYSICAL REQUIREMENTS OF SOLID CONCRETE BLOCKS

Lab ID	:	CP-2017-07-03-04 **Date: 06-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer's Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	03-07-17
Sample ID No	:	CP-2017-07-03-04/04
Sample Type/Size	:	Solid concrete blocks of size (400X200X200)mm
Reference to BIS codes	:	IS : 2185 (Part 1) : 2005(RA 2010) Concrete Masonry Specification Part 1:Hollow and Solid Concrete Blocks (Dimensions -Annex-B, Clause 9.2 and 10 , Block density Annex - C Clause 9.3 and10, Compressive strength Annex -D Clause 9.4 and 10, Water absorption Annex -E Clause 9.5 and 10)
Date of test	:	03-07-17

BLOCK DENSITY:

Sl. No.	Measurement of overall Dimensions of Individual Blocks			Overall Volume of the Block in Cubic Centimetres	Weight of Oven Dried Block in Kilograms to the nearest 10 Gram	Block Density in Kg/cum*10^6	Avg.Block Density in (Kg/cum)	As per IS 2185 (Part 1):2005 (RA 2010)
	Length	Breadth	Height					
	mm	mm	mm	(Cm^3)	Kg	Kg/m^3	Kg/m^3	
1	402	203	201	16403	33.120	2019.2	2001.7	Not less than 1800Kg/m^3
2	401	200	202	16200	31.980	1974.0		
3	401	202	201	16281	32.756	2011.9		

WATER ABSORPTION:

Sl. No.	Wet weight after water absorption	Dry weight (Oven dry)	Water Absorption	Avg.Water Absorption	As per IS 2185 (Part 1):2005 (RA 2010)
	kg	kg	%	%	
1	33.121	32.280	2.61	2.58	Shall not be more than 10% by mass
2	32.295	31.540	2.39		
3	32.765	31.890	2.74		

CIVIL PRO Sig..... Date..... BANGALORE

Lab ID : CP-2017-07-03-04

Sample ID No : CP-2017-07-03-04/04

Date: 06-07-17

COMPRESSIVE STRENGTH:

Sl. No.	Size of solid block		Area	Failure Load	Compressive strength	Average Compressive strength
	Length	Breadth				
	mm	mm	(mm^2)	(KN)	N/mm^2	(N/mm^2)
1	401	201	80601	390.8	4.8	4.5
2	401	203	81403	375.4	4.6	
3	403	201	81003	352.4	4.4	
4	402	202	81204	332.6	4.1	
5	404	199	80396	356.8	4.4	
6	401	200	80200	382.9	4.8	
7	400	203	81200	375.2	4.6	
8	403	202	81406	338.5	4.2	

As per IS Requirements (Table 2, Clause 5.1, 5.2 and 9.4)

Compressive strength		
Grade	Minimum average	Minimum Individual units.
C (5.0)	5.00 N/mm^2	4.00 N/mm^2
C (4.0)	4.00 N/mm^2	3.20 N/mm^2

Note:
The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harshitha

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL PRO BANGALORE Sig..... Date.....

****End of Report****

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CP/TF/01

TEST REPORT OF PRECAST COVER SLAB

Lab ID	:	CP-2017-07-04-02 **Date: 08-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer's Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	04-07-17
Sample ID No	:	2017-07-04-02/02(b)
Sample Type /Size	:	Precast Cover Slab
Reference to BIS codes	:	IS: 516 - 1959 Methods of Tests for Strength of Concrete
Date of test	:	04/07/2017

Sl. No.	Identification Mark	Diameter of the core	Height of the core	Weight of the core	Area	Failure Load	Core Compressive strength	Corrected Cylinder Compressive strength	Equivalent Cube Compressive strength
		(mm)	(mm)	(mm)	(Sq.mm)	(KN)	(N/mm^2)	(N/mm^2)	(N/mm^2)
1	Cover Slab-1	75.28	250.37	3.247	4450	95.5	21.5	20.0	24.9
2	Cover Slab-2	75.49	250.74	3.122	4475	92.9	20.8	19.3	24.1
3	Cover Slab-3	75.07	250.48	3.218	4425	93.6	21.2	19.7	24.6

Note:
The results pertain to the samples received and tested.
All information furnished by the Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared by
Harshitha

FOR CIVIL Pro.

CIVIL Pro Sig..... Date..... BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

****End of Report****

CP/TF/01

TEST REPORT OF FINE AGGREGATE

Lab ID	:	**CP-2017-07-03-04** **Date: 06-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer's Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Sample Condition	:	Satisfactory
Date of Receipt	:	03-07-17
Sample ID No	:	CP-2017-07-03-04/03
Sample Type	:	Fine Aggregate
Reference to BIS codes	:	IS 383 : 2016 (Specification for Coarse and fine Aggregates) IS: 2386 :1963(Part - 1, 3) RA2012 IS 2386 Part 1: Particle Size and Shape IS 2386 Part 3: Specific gravity, Density, Voids,Water Absorption
Date of test	:	03-07-17
Total weight taken	:	1000 grams

Sl.no	Sieve Size	Weight Retained (gms)	Cumulative Weight Retained (gms)	% Cumulative Weight Retained	% Passing	Requirement as per IS 383:2016			
						Grading Zone I	Grading Zone II	Grading Zone III	Grading Zone IV
1	10 mm	0	0	0.0	100.0	100	100	100	100
2	4.75 mm	28	28	2.8	97.2	90-100	90-100	90-100	95-100
3	2.36 mm	187	215	21.5	78.5	60-95	75-100	85-100	95-100
4	1.18 mm	154	369	36.9	63.1	30-70	55-90	75-100	90-100
5	600 micron	172	541	54.1	45.9	15-34	35-59	60-79	80-100
6	300 micron	225	766	76.6	23.4	5-20	8-30	12-40	15-50
7	150 micron	195	961	96.1	3.9	0-10	0-10	0-10	0-15
8	Pan	39	1000	100.0	0.0	---	---	---	---
Result :The tested Sample Conforms to Grading Zone II									

CIVIL Pro Sig..... Date..... BANGALORE

TEST RESULTS OF GRADATION FOR DBM
(IS 2386:(Part 1) 1963 (RA2011)

Lab ID	:	**CP-RW-2017-07-26-02** **Date: 27-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Reference	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	26-07-17
Sample ID No	:	2017-07-26-02/01
Type of Mix	:	DBM (Dense Bituminous Macadam)
Date of test	:	26-07-17

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	500
2	Weight of the sample After extraction	B	476	474
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	4.8	5.2
4	Average percentage	%	5.0	

Prepared By:
Harshitha

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

CIVIL Pro Sig..... Date..... BANGALORE

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

TEST RESULTS OF GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)

Lab ID	:	**CP-RW-2017-07-28-02** **Date: 29-07-17**
Customer	:	Assistant Executive Engineer, Yelahanka Sub division, BBMP, Bangalore.
Address	:	Yelahanka Sub division, BBMP, Bangalore.
Project Name	:	Asphalting and improvements to roads at Maruthinagara 1st main road from (0 to 450 mts) in ward No.01 of Yelahanka sub division.
Agency	:	Technical Manager (West), KRIDL, BBMP, Bangalore.
Customer Referenc	:	BBMP/EE/(YNK.D)/W.O/86/ 2017-18
Source of Sample	:	Sample supplied by Agency
Date of Receipt	:	28-07-17
Sample ID No	:	2017-07-28-02/01
Type of Mix	:	BC (Bituminous Concrete)
Date of test	:	28-07-17

Sl.no	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	A	500	501
2	Weight of the sample After extraction	B	470	472
3	Bitumen percentage	$\frac{A-B}{A} \times 100$	6.00	5.79
4	Average percentage	%	5.9	

FOR CIVIL Pro.

Prepared By:
Harshitha

CIVIL Pro Sig Date BANGALORE

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com

CIVIL PRO
AN ISO 9001 : 2008 COMPANY &NABL ACCREDITED LABORATORY AS PER ISO/IEC 17025:2005
4, 7TH MAIN MALLESWARAM, BANGALORE -3

Lab ID : CP-RW-2017-07-28-02

Sample ID : 2017-07-28-02/01

Date: 29-07-17

AFTER EXTRACTION - Trail-1

Total Weight of the Sample(gm) : 470

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	0	0	0.0	100.0	90-100
9.5	69	69	14.7	85.3	70-88
4.75	128	197	41.9	58.1	53-71
2.36	57	254	54.0	46.0	42-58
1.18	29	283	60.2	39.8	34-48
0.6	11	294	62.6	37.4	26-38
0.3	49	343	73.0	27.0	18-28
0.15	45	388	82.6	17.4	12-20
0.075	41	429	91.3	8.7	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 472

IS Sieve Size (mm)	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Secified limits as per MORTH specification table 500-23(grading-2)
19	0	0	0.0	100.0	100
13.2	0	0	0.0	100.0	90-100
9.5	67	67	14.2	85.8	70-88
4.75	137	204	43.2	56.8	53-71
2.36	62	266	56.4	43.6	42-58
1.18	31	297	62.9	37.1	34-48
0.6	9	306	64.8	35.2	26-38
0.3	37	343	72.7	27.3	18-28
0.15	38	381	80.7	19.3	12-20
0.075	48	429	90.9	9.1	4-10

Note:

The results pertain to the samples received and tested.
All information furnished by Customer/Representative
Any correction in the report will make this report invalid
This report without prior written approval should not be reproduced or published in full or part.
Samples will be disposed after 30 days from the date of issue of test certificate

Prepared By:
Harshitha

CIVIL Pro Sig..... Date..... BANGALORE

FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

M : 9972924526 | Tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilproexperts@gmail.com
HIGHWAY & BUILDING MATERIALS TESTING LABORATORY | STRUCTURAL |